

NOTEWORTHY GRASSES FROM MEXICO II<sup>1</sup>

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The first paper with this title can be found in *Phytologia* 27(6):441-444, Jan., 1974. All the Beetle collections mentioned hereafter are in the Range Management Herbarium at the University of Wyoming.

ARISTIDA ADSCENSIONIS L. In 1842, Trinius and Ruprecht used the name Aristida dispersa Trin. & Rupr. to combine all the New World material of A. adscensionis and to distinguish this material from all the Old World material which was treated as A. vulgaris Trin. & Rupr. They confined A. adscensionis to its type locality on the Island of Ascension.

In the Chase "Index to Grass species A. dispersa" is annotated "a group name including 5 varieties ..... Henrard takes humilis as type of the group." A. vulgaris is a similar "group name" but no mention of this is made in the Chase Index. Although all 5 of the varieties listed under A. dispersa in Trin. & Rupr. are given varietal status in the Chase Index no mention is made of the 15 names given varietal status under A. vulgaris. Henrard gives A. canariensis Willd. as the type for A. vulgaris and both names, A. vulgaris and A. canariensis, become synonyms of A. adscensionis.

Many collections of the adscensionis complex from North America, South America, the Old World and the type locality show the lateral awns to be not less than 10 mm. long, and the central awn usually not more than 15 mm. long, and to agree additionally in the upright habit, narrow and elongate inflorescence, and the generally smooth lemma except for the scabrosity on the keel. These plants represent A. adscensionis var. adscensionis as now recognized by Henrard (Monograph of the genus Aristida. Med. Van's Rijks Herb. Leiden 54A Vol. II. pgs. 331-335. 1932) and other authorities. Apparently A. adscensionis is native throughout its range since there is nearly equal development of geographic varieties in both the New World and the Old World.

From the comparisons below, it is easy to imagine that something similar to the widespread var. adscensionis achieved the original dispersal of the species and that since, in three different geographical areas, there has been a segregation of

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varieties which tend to parallel each other because they are arising from similar gene pools.

New World		Old World
North America	South America	
var. <u>adscensionis</u>	var. <u>adscensionis</u>	var. <u>adscensionis</u>
var. <u>modesta</u>	var. <u>modesta</u>	var. <u>pumila</u>
var. <u>coarctata</u>	var. <u>bromoides</u>	var. <u>guineensis</u>
var. <u>interrupta</u>	var. <u>condensata</u>	var. <u>festucoides</u>

Key to the Mexican varieties of Aristida adscensionis

Plants tall, the branching often above the base, the panicle open or if elongate, then interrupted

Panicle not markedly elongate or markedly interrupted

Panicle more or less compact, the branches short and erect

Panicle green to purplish, the awns flexuous

var. adscensionis

Panicle often very dark purple, the awn stiff and strongly reflexed

var. decolorata

Panicle very open, loose, the branches long and flexuous

var. coarctata

Panicle markedly narrow, elongate (about 20 cm. long) and conspicuously interrupted with dense fascicles

Awns 10-15 cm long, plants usually greenish

var. interrupta

Awns 15-20 cm long, plants often dark purple

var. nigrescens

Plants short, the branching primarily basal, the panicles single, dense, spikelike, with overlapping fascicles

Awns varying from 6mm. to 15 mm. long, the short-awned form; common

var. modesta

Awns obsolete; rare

var. abortiva

ARISTIDA ADSCENSIONIS L. var. ABORTIVA var. nov.

A. adscensionis var. modesta Hack. similis sed setae lemnae abortivas.

Type: Beetle M - 2403, Mexico, Baja California Sur, 5 miles south of El Coyote on Baja Concepcion.

In California and northern Mexico, well within the total range of var. modesta occurs a plant which is similar in all respects except for the striking reduction of the lateral awns of the lemma. This plant was noted by Johnston (Journ. Arnold Arboretum 24:of page 401. 1943) as follows: "three collections cited above have the lateral awns minute or nearly wanting, but otherwise they agree closely with the specimens associated with them." The three collections mentioned are Pringle 390, Johnston 8252 and Johnston 8415.

Aside from the type collection, the following have been seen: California: 11 miles west of Needles, Numz and Harwood 3621. A collection of Wiggins, his number 9676, from the south end of the Coxcomb Mts., 8 miles n.e. of Desert Center is intermediate between var. abortiva and var. modesta.

Mexico: Baja California Sur, Beetle M - 2662, near La Paz at Coromul is intermediate between var. abortiva and var. modesta.

Mexico: Durango, 8 miles north of Lerdo, Beetle M-1323.

ARISTIDA ADSCENSIONIS L. var. ADSCENSIONIS

Partial synonymy:

A. adscensionis L. Sp. Pl. 82. 1753.

A. canariensis Willd. Enum. Pl. 99. 1809.

Chaetaria adscensionis (L.) Beauv. Ess. Agrost. 30. 1812.

A. divaricata Willd. misapplied by Jacq. Eclog. Gram. 7.pl.6.

1814, not A. divaricata Humb. & Bonpl.

A. humilis H.B.K. Nov. Gen. & Sp. 1:121. 1815.

Chaetaria humilis (H.B.K.) R. & S. Syst. 2:396. 1817.

A. fasciculata Torr. Ann; Lyc. N.Y. 1:154. 1824.

Chaetaria fasciculata (Torr.) Schult. Syst. Veg. 2:Mant. Addit. 1:578. 1827.

Aristida vulgaris Trin. & Rupr. var. canariensis (Willd.) Trin.

& Rupr. Mem. Acad. St. Petersburg. VI. Sci. Nat. 5:132. 1842.

Aristida vulgaris Trin. & Rupr. Mem. Acad. Sci. Petersburg. Vi. Sci. var. mongholica Trin. & Rupr.

5:133. 1842, a syn of A. adscensionis L. acc. to J.

Malata Beliz. Gramineas de Ilha de Maio. Bot. Soc.

Broteriana 44 (second Ser.) 266. 1970.

A. dispersa Trin. & Rupr. Mem. Acad. St. Petersburg. VI. Sci. Nat. 5:129. 1842.

- A. adscensionis L. var. canariensis (Willd.) Dur. & Schinz.  
Consp. Fl. Afr. 5:799. 1894.
- A. adscensionis L. var. typica Stapf. in Hook. Fl. Brit. India  
VII. 224. 1897.
- A. adscensionis L. var. normalis Kuntze and f. viridis Kuntze,  
Rev. Gen. Pl. 3:340. 1898. Also f. violascens Kuntz, op.  
cit. 1898.
- A. adscensionis L. var. humilis (HBK) Kuntz Rev. Gen. Pl. 3:340.  
1898.
- A. adscensionis L. var. modesta Hack. in Stuck. Anal. Mus. Nac.  
Buenas Aires 11:89. 1904.

This is the type of Aristida adscensionis which is both common and widespread. It occurs in North America from Missouri, Kansas, and Colorado, south to Arizona, New Mexico and Texas, throughout Mexico, where it is the most common variety, and in Guatemala, Venezuela and Argentina. Mexican collections include: Sonoro, Beetle M - 2344; Baja California Sur, Beetle M - 2407; Nuevo Leon, Beetle M - 425; Zacatecas, Beetle M - 1790; Sinaloa, Beetle M - 2672; Queretaro, Beetle M - 1703; Morelos, Beetle M - 1645; Oaxaca, Beetle M - 1515.

ARISTIDA ADSCENSIONIS L. var. MODESTA Hack.

Synonymy:

- Aristida festucoides Stend. & Hochst. Abh. Bohm. Ges. Wiss.  
3:550. 1845, nomen nudum, Chile (non A. festucoides Poir.,  
1810).
- Aristida americana var. bromoides (HBK) Scribn. & Merr. U. S.  
Dept. Agr. Div. Agrost. Circ. 32:5. 1901, sensu Scribn.  
& Merr., non A. bromoides HBK.
- Aristida adscensionis var. modesta Hack. in Stuckert, An. Mus.  
Nac. Bs. Aires 11:89. 1904.
- Aristida adscensionis var. coerulescens (Desf.) Hack. in  
Stuckert, op.cit., sensu Hackel non A. coerulescens Desf.

A collection, Beetle 596, Prov. of Mendoza, 8 kil. s. of Villavicencia on first slopes breaking out of the Mendoza Plain, dry rocky site, April 25, 1953, from Argentina, agrees exactly with North American desert habitat and material from California, Arizona and Mexico. Many early floras including Hitchcock's treatment of grasses for Jepson's Flora of California, accepted var. bromoides either as a species or as a variety and this practice should continue, but the name changed since Henrard has redefined the limits of var. bromoides based on examination of the type which is from Ecuador.

The common variety in California and Arizona is var. modesta. It has apparently also been reported for Texas by Silveus in his "Texas Grasses" for he says (cf. page 333), "The author collected in the Hueco Mountains some plants with spikelets 5-7 mm. long,

central awn 4-8 mm. long, and the lateral 2-5 mm. long." It is very common in Baja California Sur, and rarer in continental Mexico, also occurring in central South America. Mexican collections include: Baja California Sur, Beetle M - 2587 and M-2496; Baja California Norte, Beetle M - 1876 and M - 1867; Nuevo Leon, Beetle M - 2891 and M - 390; S.L.P., Beetle M - 1764; Zacatecas, Beetle M - 1812; Mexico, Beetle M - 2922.

ARISTIDA ADSCENSIONIS L. var. COARCTATA (HBK) Kuntze

Synonymy:

Aristida coarctata HBK. Nov. Gen. 1:100(122). 1815.

Chaetaria coarctata (HBK) R. & S. Syst. 2:396. 1817.

Aristida dispersa var. coarctata (HBK) Trin. & Rupr. Mem. Acad. St. Petersburg. VI. Sci. Nat. 5:130. 1842.

Aristida laxa Willd. ex Trin. & Rupr. Mem. Acad. St. Petersburg. VI. Sci. Nat. 5:130. 1842, as syn., not A. laxa Cav. 1799.

Aristida maritima Steud. Syn. Pl. Glum. 1:137. 1854.

Aristida adscensionis L. var. coarctata (HBK) Kuntze, Rev. Gen. Pl. 3:340. 1898.

Aristida debilis Mez, Repert. Sp. Nov. Fedde 17:151. 1921.

This variety is characterized by its open inflorescence, the panicle lax and loose, somewhat spreading. The central awn is usually markedly longer. This variety has been described many times from many places and occurs mostly on the east coast of Mexico but also on various islands of the Caribbean and in Venezuela. In Mexico the grass has been reported for Jalisco, Tamaulipas, Yucata (Beetle M - 999) and Campeche (Beetle M - 922). Although the name implies a dense panicle, Henrard says of the type "The plant is the somewhat open-panicled form of the common Aristida adscensionis, a form not uncommon in Mexico."

ARISTIDA ADSCENSIONIS L. var. DECOLORATA (Fourn.) comb. nov.

Based on Aristida grisebachiana Fourn. var. decolorata Fourn. Mex. Pl. 2:78. 1886.

This plant is characterized by its striking habit of producing whorled vegetative branching well above the base of the plant as well as by its stiff, straight awns which are often rigidly divaricate. The lemmas and awns are sometimes very dark purple as the name implies.

This variety is most common in Mexico, in Baja California Sur but has also been collected in Oaxaca (whence the type) and on the Yucatan Peninsula. Collections include Yucatan, Beetle M - 852; Oaxaca, Beetle M - 3103 and M - 3227; Baja California Sur, Beetle M - 2609, M - 2390, and M - 2429.

ARISTIDA ADSCENSIONIS L. var. INTERRUPTA (Cav.) Comb. nov.

Based on Aristida interrupta Cav. Icon. Pl. 5:45 pl. 471, fig. 2. 1799 and A. adscensionis L. subvar. interrupta (Cav.)  
Henr. Monogr. of the genus Aristida. 325. 1932.

Synonymy: Aristida schaffneri Fourn. Mex. Pl. 2:78. 1886  
Aristida grisebachiana Fourn. Mex. Pl. 2:78. 1886  
Aristida adscensionis var. mexicana Hack. ex Henr.  
Med. Rijks Herb. Leiden 54A:265. 1927, as syn. of  
A. adscensionis, name only.

This variety has the usual awn measurements between 10 mm. and 15 mm. in length but the inflorescence is 20 cm. long in a narrow but interrupted panicle. In Mexico, it occurs along the eastern edge of the high plateau as follows: Coahuila, Almeida, Julian and Beetle no. 124; Nuevo Leon, Beetle M - 1084, Tamaulipas, Beetle M - 1210 and Veracruz (type locality for Fournier's species).

ARISTIDA ADSCENSIONIS L. var. NIGRESCENS (Presl) Comb. nov.

Based on Aristida nigrescens Presl. Rel. Haenk. L:223. 1830 and  
on A. dispersa Trin. & Rupr. var. nigrescens (Presl) Trin.  
& Rupr. Mem. Acad. St. Petersburg. VI. Sci. Nat. 5:130. 1842.

This variety is very similar to var. interrupta (Cav.) Beetle but has much longer awns (always more than 15 mm. long, and frequently 20 mm. long) and the sometimes very dark purple spikelets, and its geographically distinct range, apparently occurring along the western coast of Mexico both in Baja California Sur and on the mainland. Collections include Baja California Sur, s. of La Paz, Beetle M - 2567 and 5 miles e. of San Antonio, Beetle M - 2648 and Beetle M - 2642; Sonora, west of El Coyote, Beetle M - 2024; and Nagales, Beetle M - 21; Guerrero, near Acapulco, Beetle M - 276; Oaxaca, near Tehuantepec, Beetle M - 2476 and Beetle M - 1462.

PASPALUM CONJUGATUM f. TRISTACHYA (Vanderz) comb. nov.

Based on P. conjugatum var. tristachya Vanderz, Bull. Agricol.  
Congo Belge 9:245. 1918 from Africa

Synonymy: Paspalum sieberianum Steud. Syn. Pl. Glum. 1:17. 1854.  
Paspalum longissimum Hochst. ex Steud. Syn. Pl. Glum. 1:19

Collected in the state of Tabasco near La Venta at the archeological pyramid, Dec. 30, 1973, Beetle M-3081, first report for Mexico.